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SECTOR ANALYSIS--FROM SENTENCE TO MORPHEME IN ENGLISH.

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THE ADVANTAGES OF SECTOR ANALYSIS ARE DISCUSSED, WITH SPECIAL REGARD TO THE SEPARATION OF FUNCTION AND FORM IN SENTENCE ANALYSIS. SECTOR ANALYSIS, LIKE TAGMEMIC ANALYSIS, REJECTS THE USE OF REWRITE RULES FOR EXPRESSING GRAMMATICAL TRANSFORMS, AS WELL AS THE CONCEPT OF "KERNEL SENTENCES." A BRIEF DISCUSSION OF A CHILD'S LANGUAGE ACQUISITION PROCESS IS GIVEN. VARIOUS "SECTORS," OR HIGH LEVEL POSITIONS IN THE SENTENCE, ARE PROPOSED ALONG WITH SUCH DIFFERENT TYPES OF CONSTRUCTIONS AS CLAUSE, CLAUSID, TRUNK, PREDICATE, AND PREDICATID. THE PREDICATID IS CONSIDERED TO BE AN IMPORTANT CONSTRUCTION IN ENGLISH, AS IT CAN OCCUR IN SEVERAL DIFFERENT SECTORS, ON VARIOUS LEVELS, AS WELL AS IN THE SHORTENED SENTENCES OF EVERYDAY CONVERSATION. "GOING HOW NOW.--BEEN WAITING LONG." THE AUTHOR CONCLUDES THAT NOT ALL THE SUBSECTORS ON PREDICATID AND LOWER LEVELS HAVE BEEN INVESTIGATED AS YET. THE ARTICLE IS A CONDENSATION OF A MORE DETAILED ANALYSIS OF ENGLISH GRAMMAR, AND INCLUDES A THOROUGH STUDY OF THREE MODEL SENTENCES. THIS PAPER WAS PRESENTED AT THE GEORGETOWN ROUNDTABLE CONFERENCE (WASHINGTON, D.C., MARCH 18, 1967) AND IS TO BE PUBLISHED IN THE PROCEEDINGS. (FB)

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Sector Analysis: From Sentence to Morpheme in English

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Although sector analysis was originally developed outside the mainstream of tagmemic analysis, both types of analysis have much in common. Both accept the tagmeme (as defined by Pike) as the basic unit in the grammatical hierarchy of a language; both recognize the "intimate . . . correlativity of function and set" and the mutal dependence of each on the other:[1] both consider patterning to be central to human behavior and, in Longacre's words, "recognize as superior the grammar which sets forth the patterns of a language in the more straightforward and direct manner."[2] At the same time, both admit -- to quote from Longacre again -- "the usefulness of grammatical transforms as one means of expressing relations between sentences,"[3] although neither uses the rewrite rules of transformational grammar as the way of expressing such transforms.

I assume, furthermore, that tagmemic analysis -- like sector analysis -- rejects the concept of a set of "kernel sentences" which every native speaker of a language first internalizes in some fashion and then transforms into the other sentences of the language by means of transformational rules. Indeed, I believe it much more likely that what a child internalizes first are the most common sequences of positions on the different levels in the grammatical hierarchy of his language, together with the types of constructions that may occur in those positions -- in other words, the strings of tagmemes on each level. A small child, for instance, will learn to say naughty doggie not as a transform of The doggie is naughty but rather as a sequence of two tagmemes which together form a CLUSTER: a slot for a MODIFIER,

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[1] Robert E. Longacre, Grammar Discovery Procedures (The Hague: Mouton & Co., 1964), p. 16.

[2] Ibid., pp. 13-14.

[3] Ibid., p. 16.

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which can be filled by an adjective like naughty or nice, and a slot for the head or NUCLEUS of the cluster, which can be filled by a noun like doggie or pussy. When the child says "naughty doggie" about a specific dog, he is using the whole construction -- the cluster -- to fill a single position on a higher level: he is using it as a COMPLEMENT -- or as the PREDICATE, if you will -- in a sentence with no subject. Later, when the child learns to use what Bloomfield calls "displaced speech," [4] he will fill the SUBJECT slot as well, and will say something like "Fido naughty doggie," where the cluster naughty doggie more clearly fills a single position on a higher level. Still later, of course, the child will learn to add more slots (such as the DETERMINER slot) to the sequence of slots within the cluster, and still other positions to the sequence of positions within the predicate -- so that he will be able to say "Fido is a naughty doggie" or "Fido was a naughty doggie." And then one day, perhaps, the child, noting (unconsciously) that both the subject position and the complement position can be filled by constructions of the same type, will say "Mark bit a naughty doggie" instead of "A naughty doggie bit Mark." (Only a few days ago the mother of a small boy reported to me just such a transposition of elements in her son's speech, although with different words.) When the child ~~is corrected and learns~~ learns to say "Mark was bitten by a naughty doggie" instead of "Mark bit a naughty doggie," he is on his way to using transformational rules -- but it is significant, I believe, that all the constructions in all his transformed sentences will fit into the positions he has already learned. In other words, no transformational rule seems to produce a new tagmeme.

But although sector analysis may justifiably be called a form of tagmemic analysis, it differs from orthodox tagmemic analysis in certain respects. Perhaps the most

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[4] Leonard Bloomfield, Language (New York: Henry Holt and Company, 1933), p.141.

important of these is to be found in the differing assumptions held by adherents of the two schools regarding levels of analysis. I agree with Longacre that "immediate constituent analysis yielded ad hoc hierarchies specialized overmuch in terms of particular sentences [and] failed, therefore, to uncover hierarchically arranged patterns of maximum relevance and comparability."[5] With him I reject the assumption that almost every structure in a language can be cut into two constituents: I know of no way of determining the first cut in a noun cluster like three blind mice with any real assurance that I am not being arbitrary. And yet I believe that there are many more binary constructions -- at least in English -- than Longacre seems to recognize; I also feel that, in his desire "to uncover hierarchically arranged patterns of maximum relevance and comparability," he has tried to compress the nine or ten different kinds of lvels to be found in the grammatical hierarchy of English into the four or five levels that tagmemic grammarians always seem to find in other languages. Although it is interesting to find similaritics between English and other languages, over-simplification may result in the failure to note certain significant features.

Let me give one or two specific examples. Longacre rightly makes much of the function of a given set: "the tagmeme concept," he says, "restores function to its rightful place in grammar."[6] Now surely the function of a prepositional phrase is so very different from that of a noun cluster that the two cannot possibly be claimed to exist on the same level, at least in English -- and yet, if I am not mistaken, Longacre treats them both as being on "the phrase level." A prepositional phrase (the only unit, by the way, that is called "a phrase" in sector analysis) is

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[5] Longacre, op. cit., p. 16.

[6] Ibid.

marked by the preposition which introduces it, and normally consists of a preposition plus a noun cluster: a noun cluster, then,belongs to a set which fills one of the two slots in a prepositional phrase, and occurs on a different level from that of the phrase. Since a prepositional phrase, in turn, regularly fills a post-nucleus slot within a noun cluster, it is difficult to say which of the two is on a "higher" level -- but they certainly occur on different levels, a fact which is obscured when both are called "phrases."

Again, in the sentence Hearing a low groan, Arthur Bates, the night watchman, turned on his flashlight, the noun clusters a low groan, the night watchman, and his flashlight all seem to be on lower levels than the subject Arthur Bates: they are all parts of predications that are being made about Arthur Bates. Similarly, the cluster the pioneer's family in Longacre's classic example does not seem to be on the same level as the slow lumbering covered wagon:[7] the former is part of the predication being made about the latter. It is for this reason, as I point out in The Verb System of Present-Day American English,[8] that Longacre's sentence can be shown to be homologous to John ate downtown yesterday as well as to John sold gum downtown yesterday, so that one might claim that the original clause should be cut into four constituent parts instead of into five. It is significant, I think, that Ruth Crymes, in her study of "Some Systems of Substitution Correlations in Modern American English" (to be published shortly by Mouton and Company) found that she had to assume -- as does sector analysis -- the existence of at least one predicatival level between the phrase and clause levels, just as she had to distinguish between the cluster and phrase levels. Incidentally, I might add that

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[7] Robert E. Longacre, "String Constituent Analysis," Language, XXXVI, No. 1 (January-March, 1950), 65 ff.

[8] Robert L.Allen, The Verb System of Present-Day American English (The Hague: Mouton & Co., 1966), p. 85.

the recognition of predication-making units as sets filling fixed positions within the sentence is proving to be extremely useful in the analysis of the styles of different authors, an area to which sector analysis has been applied with increasing frequency during the last two or three years.

Sector analysis was originally devised for the analysis of individual sentences as they appeared in a given text. Recently it has been applied to units larger than single sentences, but it is still used most commonly in analyzing single sentences, beginning on the sentence level and working from there down to the morpheme level. The principal emphasis is placed on the identification of the positions on higher levels: that is, the positions on the sentence, clause, clausid, trunk, predicate, and predicatid levels. (A predicatid is a non-finite predicate; a clausid is made up of a subject plus a predicatid.) The positions on these levels are called "sectors," to distinguish them from the "slots" on lower levels; hence the term "sector analysis." After the various positions have been identified, the analyst then notes all the different types of constructions that may occur in any given position (and may, if he wishes to, make up a chart showing all the tagmemes he has been able to identify -- or else a chart showing the tagmemes that occur most frequently). At the same time he may look for the different meanings suggested by a given tagmeme, as for instance by the tagmeme "subject position filled by noun cluster." (Because of its initial emphasis on positions for large units, sector analysis has implications for the teaching of reading and writing, but a discussion of such implications would take me beyond the scope of this paper.)

Although each sentence is analyzed as it appears in the text, it has been possible to derive, from the analysis of large numbers of sentences, the pattern of sectors and/or slots that may occur on any level. It is not possible to predict the ordering of levels below the predicatid level: from there on down to the

morpheme level, an analyst must take the levels as they come. Each level is named after the type of construction which occupies the entire level; as I suggested earlier, there seem to be only nine or ten different construction-types in English, and therefore only nine or ten different kinds of levels, although, because of the recursiveness to be found in all languages, the same kind of level may appear again and again at greater depths as the analysis of a sentence proceeds. The total "depth" of a sentence -- that is, the total number of levels that one finds in analyzing it -- provides some measure of the complexity of the sentence and may indeed be a better index of its "readability" than is provided by most readability formulas now in common use.

Throughout the analysis, the <u>function</u> of a given construction is determined by its use -- by the position which it fills -- in a larger construction; the construction is then taken out of the larger construction and is examined by itself, for its own internal <u>form</u>. For this reason a sentence should not really be analyzed alone: its function will depend upon the position which it fills within a sequence of sentences. It is this fact which enables us to distinguish between the first and last utterance in the following conversation between a man named Bill and his wife, who have a son also named Bill:

"Bill."

"Yes?"

"Who broke that window?"

"Bill."

However, in order to simplify the following summary of analytic procedures used in sector analysis, I will limit myself to the discussion of single sentences.

But before I turn to the sentences that appear in the handout, I would like to call attention to one important result of the insistence in sector analysis that the function and the form of any unit be analyzed on separate levels. Inevitably certain items that are merely single words in form, prove to be fillers of positions for constructions. This is true, for instance, of the so-called "personal pronouns," which are not -- with only a few exceptions -- substitutes for nouns, but are rather substitutes for nominals. (The exceptions are one and ones, and -- in speech -- items like thingamajig, whatsis, and you-know-what, as in that red thingamajig on the shelf.[9]) Other substitutes for constructions are words like then and there. Actually, substitutes in English are substitutes for tagmemes, not substitutes for constructions: the substitute for last winter in subject position (as in Last winter was very cold) is the pro-nominal it, whereas the substitute for last winter in adverbial position (as in Last winter we went to Florida) is the pro-temporal-adverbial then.[10] This dichotomy between function and form sometimes results in a single word's taking two different kinds of modifiers, one a modifier of itself as a word and the other a modifier of the construction whose position it is filling. The expression just judges is ambiguous for this very reason: the word judges is a noun, and as such it may take an adjective modifier, so that just judges may mean judges who are morally right or fair; on the other hand, the word judges may function alone as the nucleus of a cluster

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[9] See the discussion in Robert L. Allen, "The Classification of English Substitute Words," General Linguistics, V (1961), 7-20, and also -- for you know what -- Allen Walker Read, "A Type of Ostentatious Taboo," Language, XL, No. 2 (April-June, 1964), 162-166.

[10] See the discussion in Allen, "The Classification of English Substitute Words," pp. 9-10, and Ruth Helen Crymes, "Some Systems of Substitution Correlations in Modern American English with Implications for the Teaching of English as a Second Language" (unpublished Ph.D. dissertation, Columbia University, 1965, to be published shortly by Mouton & Co.), p. 234 and passim.

in which there happen to be no modifiers -- and thus, as the filler of a cluster position, it may be modified by a construction-modifier like just (meaning 'only'). The difference between the two just's becomes clearer when both are used together, as in just just judges. (It may be noted in passing that pro-nominals like me and you and him, since they are substitutes for constructions rather than for words, are regularly modified by construction-modifiers, as in only me, even you, especially him.)

But to turn now to the handout. The first sentence -- the one beginning with the words Just as she was locking up her desk -- contains within it all the different construction-types that we have been able to identify so far in English. I should point out, however, that one of these types -- that of clusters -- has several sub-types: on the third line of the analysis, for example, there appears the cluster just as she was locking up her desk, with a clause as its nucleus modified by the construction-modifier just, while halfway down through the analysis of the sentence there appears both a noun cluster, ry partner, and an adjective cluster, rather stupid. Indeed, even the sentence-unit on the second line of the analysis is merely a special type of cluster, a cluster with the trunk as its nucleus modified by a front adverbial. (There might also have been one or more end adverbials following the trunk.) A CLUSTER, then, is a construction consisting of a NUCLEUS with (or without) preceding and/or following MODIFIERS. Clusters are the same as Bloomfield's "endocentric constructions,"[11] although his definition is considered inadequate: noun clusters, for example, are not considered as belonging to the same form-class as nouns, nor are noun clusters regarded as necessarily functioning in the same way as their nuclei.

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[11] Bloomfield, op. cit., p. 195.

A SENTENCE-UNIT (like the one on the second line of the analysis) is a unit which could stand alone as a sentence if it had the proper capitalization and end punctuation (or the proper intonation). It is derived from a SENTENCE as that sentence appears in writing or in speech by removing the initial capital and the end punctuation -- or by removing the intonation. (Any sequence signal, interjection, noun of address, or the like appearing in the original sentence is also removed on the sentence level.) A sentence-unit, as I have already said, is a special sub-type of cluster: it contains an obligatory TRUNK as its nucleus, with one or more optional FRONT ADVERBIALS preceding it and one or more optional END ADVERBIALS following it, as its modifiers. These adverbials can usually be identified by their ability to shift from the front position to the end position or from the end position to the front position, although occasionally some factor such as the complexity of the subject or the time sequence of different elements within the sentence will make such shifting unnatural or even impossible. (But we have found that even fourth graders will regularly shift last winter to end position when changing the statement Last winter they went to Florida to a yes-no question.)

On the sentence-unit level one cuts off the front and end adverbials; what is left is by definition the trunk. In the first sentence-unit appearing on page one of the handout, only two sectors have been filled: a front adverbial sector, and the trunk sector. Each of these sectors is filled by a construction; either construction may now be brought down to a lower level and analyzed for its internal form. In the handout, the front adverbial is analyzed first -- and is found to consist of a cluster, as I have already pointed out. (Clusters are enclosed between large K's, the second K being inverted.) Since the construction-modifier just is a single word, it is not brought down further; however, the nucleus of the cluster -- as she was locking up her desk -- is brought down to a lower level and

is identified as consisting of an included clause, marked by the includer as. (It is enclosed between straight brackets.) This includer is then cut off, and all the rest of the clause is brought down. An included clause is by definition a sentence-unit to which an includer has been added; the unit she was locking up her desk must therefore be a sentence-unit. On the sentence-unit level we cut off front and end adverbials, to find the trunk; in this instance we find no adverbials -- the sentence-unit consists of only a trunk. We can write the trunk over again, on a lower level, or we can do what is done in the handout and merely label the same level "sentence-unit and trunk."

A trunk is again a binary unit: it is made up of a SUBJECT and a PREDICATE. The subject is defined as that unit around which a CARRIER shifts to transform a statement into a yes-no question.[12] (The carriers are so called because they "carry" emphatic stress and/or the negator not or n't in emphatic and/or negative trunks: neither emphatic stress nor the negator can occur without some carrier to carry it. The carriers also carry the tense morpheme in predicates; this tense morpheme -- or rather, the time-orientation -- is symbolized by "x," and the position filled by carriers is therefore labeled "X" and is called "THE X SECTOR," from which carriers get their nickname "X WORDS." The X words in English are am, are, is, was, were; will, would; shall, should; can, could; may, might; must; ought; have, has, had, do, does, and did when they are not used as verbs; and sometimes need and dare.) The trunk she was locking up her desk can be transformed into a yes-no question by shifting the X word was around the pro-nominal she; she is thus identified as the subject of the trunk (and is enclosed in a rectangle in the diagram, as is every nominal). All of the trunk excluding the subject is, by

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[12] There is one exception to this rule: middle adverbs like often, already, really, slowly, and the like may shift from their usual position following the X word to a position between the subject and the X word, as in I never have been to Europe. Such middle adverbs, of course, do not form part of the subject, but they can easily be distinguished from the subject by their -ly ending or -- in the case of those that do not end in -ly -- by their occurrence in a given list.

definition, the predicate, which is marked with a wavy arrow above it pointing to the subject about which it makes a predication.

Cutting the X word out of the predicate leaves a predicate-like unit which, however, lacks time-orientation. Such a unit is called a PREDICATID, where the suffix -id is used to signify lack of time orientation. (A clausid is a non-finite clause; a verbid is a non-finite verb form.) Predicatids are recognized as important constructions in English; they are certainly among the most versatile, occurring, as they do, in any of several different sectors, on various levels. More than that, they also serve as models for a large number of the shortened sentences one hears in conversations and reads in advertisements, either as questions or as commands; for example,

Have a drink?

Finished your work yet?

Going home now?

Feeling tired?

Come on in.

Sit up straight.

Been waiting long? 13

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13 This last example shows that it is not true, as has been claimed by some linguists, that the first auxiliary (that is, the X word) is deleted from predicates used as questions because the auxiliaries lack secondary or tertiary stress, and the speaker tends to begin his question with a stressed word. In the question "Been waiting long?" there is only a weak stress on the been -- but it is not omitted from the question.

There is reason for believing that the different kinds of predicatids make up a basic set of constructions in English, constructions which are not obtained merely by means of deletion rules.

There are, of course, predicates in which the tense morpheme is not carried by an X word but is incorporated in the verb itself, as in the other predicate on that same page of the handout (saw a woman wearing earrings as large as golf balls walk into his office). Originally such predicates were analyzed differently in sector analysis from predicates containing X words. Now, however, we follow the lead of Ruth Crymes, who -- in her study of English substitutes -- "assigns the tense morpheme to a pre-predicatid slot, shiftable to V slot when no carrier is required."[14] Thus every trunk is assumed to contain a predicate, and every predicate is assumed to contain a predicatid. (In diagrams, predicatids are enclosed between braces.)

It is not possible, in the time at my disposal, to describe all the sectors and sub-sectors -- and the shifted positions for the same -- that occur on the predicatid and lower levels. Indeed, some of these lower-level positions are still being investigated: earlier formulations of criteria for their identification have been questioned and are currently being re-examined. It is fairly certain, however, that every predicatid contains a sector for a VERBAL (which may take either a single verbid or one or more auxiliaries plus a verbid); the verbal sector, in turn, is followed by a single sector for an OBJECT (marked "O" in the diagram) and by one or more sectors for COMPLEMENTS, and by one or more sectors for PARTICLES (marked "B" in the diagram). The object in the predicatid locking up her desk consists of the cluster her desk, made up of the nucleus noun desk preceded by the determiner her

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[14] Crymes, op. cit., p. 66, n.1.

(which is marked in the diagram by a bent arrow, to show that no other element -- not even another determiner -- can precede it within the cluster).

We have now analyzed each construction in the front adverbial, down to the word level, and take up the analysis of the trunk. We again identify the subject by converting the trunk into a yes-no question (did my partner's rather stupid secretary see . . .) and by then finding the other position for the X word (my partner's rather stupid secretary did see . . .). The unit between the two positions for did is the subject. When we bring the subject down to the next level, we see that it consists of a cluster made up of the nucleus secretary preceded by two modifiers, one (my partner's) in the determiner slot, and the other (rather stupid) in an adjectival slot. Each of these modifiers has to be brought down to a lower level. The construction my partner's is unlike any other construction in English in that it is signaled by its ending: the 's marks it as being a POSSESSIVE. (It is interesting to note that the "word" partner's cannot really be claimed to be an item on the word level at all: the 's fills a slot on an entirely different level from the level on which the slot filled by the word partner occurs. An even better example would be the "word" Education's in the Board of Education's decision, in which the 's is obviously added to the cluster the Board of Education, not to the noun Education. The "word" Education's clearly cannot belong to any form-class or part of speech.[15]) Cutting off the possessive ending 's from my partner's, we have left the cluster my partner, which has already been discussed, as has the cluster rather stupid.

The predicate saw a woman . . . is analyzed as consisting of the X word did plus the predicatid see a woman . . . . Only two sectors are filled in this

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[15] Compare with this analysis the analysis of the cluster the pioneer's family in Longacre, "String Constituent Analysis," p. 63, where Longacre segments the pioneer's family into the, pioneer's, and family. His analysis fails to distinguish between the different levels on which the words in this cluster occur.

predicatid: the verbal sector and the object sector. When we bring down the object, we see that it consists of the predicatid walk into his office, which makes a predication about the subject a woman wearing earrings as large as golf balls. The two together therefore make up a CLAUSID (which is enclosed in the diagram between square brackets across which little lines have been drawn). Within the subject there is another predicatid, wearing earrings as large as golf balls; but this second predicatid does not make a predication about the woman -- it describes her. We could insert the words who was: a woman who was wearing earrings as large as golf balls. The second predicatid, therefore, is a modifier of the nucleus noun woman and fills a post-nucleus slot in the cluster a woman wearing earrings as large as golf balls. This whole cluster could be replaced by the single pro-nominal her -- but the clausid of which it is the subject would require at least two words as a substitute, the pro-nominal her and either the verbid enter or else a pro-predicatid such as do that or do so.

This difference between the use of a predicatid as a modifier and the use of a predicatid to make a predication is, of course, exactly that feature of English which underlies the ambiguity to be found in Chomsky's example I found the boy studying in the library ("whose ambiguity of representation," he says, "could not be demonstrated without bringing transformational criteria to bear"[16]). Perhaps even better examples are those to be found on the second page of the handout, where the first sentence refers to our finding of a tree which we already knew to have been blown down by the wind, while the second sentence refers to a tree which we were looking for and which we expected to find still standing -- but which, when we found it, turned out to have been blown down by the wind. The predicatid

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16 Noam Chomsky, Syntactic Structures ('S-Gravenhage: Mouton & Co., 1957), p.38.

blown down by the wind in the second sentence makes a secondary predication (about the tree) within the clausid the tree blown down by the wind, but at the same time it fills the complement sector within the primary predication found (or did find) the tree blown down by the wind. There is, however, a second kind of clausid that might occur within the primary predication, one which I have not seen described as distinct from the first by transformational grammarians: this is the kind of clausid which fills, not the object and complement sectors, but rather only the object sector, as in the third sentence on that page. Since the object sector may be filled by a clausid -- and since the object sector may also hold the subject of an object-complement clausid -- it follows that one should be able to make up a sentence with a clausid functioning as the subject of a clausid, the two together filling the object and complement sectors within a primary predication. This is just what one can find in the fourth sentence on that page. (The non-finite verbid to be may be inserted before the complement a disgrace, although it is often omitted after certain verbs.)

The predicatid in the subject cluster is made up of the verbid wearing plus the object earrings as large as golf balls. This object is a cluster with the nucleus earrings, which is modified by the single post-modifier as large as golf balls. This modifier, in turn, is an adjective cluster with the nucleus large -- but large is modified, not by two separate modifiers as and as golf balls, but rather by the single DISCONTINUOUS MODIFIER as . . . as golf balls, in which the first as is a word belonging to the form-class of ANTICIPATORS, whose function is to "anticipate" a following modifier. (Another such anticipator is too, as in too clever for his own good, which should be compared with very clever: too anticipates a following modifier, very does not.)

The construction as golf balls -- like the construction into his office -- is a (PREPOSITIONAL) PHRASE, made up of a preposition plus its object. (Prepositional

phrases are enclosed between angle brackets in the diagram.) Cutting off the preposition in each case leaves the object of the preposition, which is then brought down to the next level and is analyzed for its form, in its own turn. (The object of a prepositional phrase might itself include another phrase, as in the book on the table in the hall.)

I will not attempt to go through the analysis of the sentence on the third page of the handout. It does not introduce any new constructions or levels; it is presented here only to show how predicatids and clausids may be embedded within each other in an English sentence, in an amazing hierarchy of concatenations. I think the diagram on that page does what Longacre claims the description of a language should do: it gives centrality to the linguistic patterns, and throws those patterns into bold relief. It makes clear, I believe, the nesting quality of English predications, which Nelson Francis attempts to show with his Chinese boxes[17] -- but it does so one step at a time. And it makes graphic the "layers of structure" that Fries discusses in Chapter XII of his Structure of English.[18] It also shows up -- I hope -- the potential ambiguity that is inherent in a language with a word order as fixed as that of English. Since the constructions in a sentence must be written -- or spoken -- in a linear sequence, certain constructions are likely to turn up at the end of a sentence, regardless of the level on which they occur. But differences in the identification of the level to which a construction belongs may result in differences in the interpretation of the meaning of the sentence. In the example given here, for instance, it may be that Mrs. Fox merely wanted the policeman to perform his duty during the time she was sleeping.

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[17] W. Nelson Francis, The Structure of American English (New York: The Ronald Press Company, 1958), Chapters 6 and 7.

[18] Charles Carpenter Fries, The Structure of English (New York: Harcourt, Brace and Company, 1952), pp. 250-273.

In that case, the included clause while she was trying to sleep would fill the end position in the clausid beginning with the words the policeman, and there would be no suggestion that Mr. Fox regularly arranged to have the grass cut while Mrs. Fox was napping. In my analysis, however, I have made Mr. Fox out to be a cad by placing the included clause on a much lower level. I think that this is a more interesting analysis -- but I cannot prove that it is the right one!

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SENTENCE:
Just as she was locking up her desk, my partner's rather stupid secretary saw a woman wearing earrings as large as golf balls walk into his office.

SENTENCE-UNIT:
FRONT ADVERBIAL: just as she was locking up her desk
TRUNK: my partner's rather stupid secretary saw a woman wearing earrings as large as golf balls walk into his office

CLUSTER: just as she was locking up her desk
(INCLUDED) CLAUSE: as she was locking up her desk
SENTENCE-UNIT & TRUNK: she was locking up her desk

PREDICATE: was {locking up her desk} (V B O)

PREDICATID: {locking up her desk}
CLUSTER: her desk (*)

TRUNK: SUBJECT: my partner's rather stupid secretary | PREDICATE: saw a woman wearing earrings as large as golf balls walk into his office
CLUSTER: my partner's rather stupid secretary
POSSESSIVE: my partner's (*)
CLUSTERS: my partner (*); rather stupid (*)

PREDICATE: did {see a woman wearing earrings as large as golf balls walk into his office} (V)

PREDICATID: {see | OBJECT: a woman wearing earrings as large as golf balls walk into his office}

CLAUSID: SUBJECT: a woman wearing earrings as large as golf balls | PREDICATID: walk into his office
CLUSTER: a woman wearing earrings as large as golf balls (*) (V)

PREDICATID: {wearing | OBJECT: earrings as large as golf balls}
CLUSTER: earrings as large as golf balls (*)

CLUSTER: as large as golf balls (*)

DISCONTINUOUS MODIFIER: as.....as golf balls
(PREPOSITIONAL) PHRASE: as golf balls
CLUSTER: golf balls (*)

PREDICATID: {walk | COMPLEMENT: into his office} (V)
(PREPOSITIONAL) PHRASE: into his office
CLUSTER: his office (*)

Robert L. Allen

THREE DIFFERENT USES OF PREDICATIDS

Teachers College
Columbia University

AS A MODIFIER IN A NOUN CLUSTER:

We found [the tree* {blown down by the wind}]. (= the tree which, we had heard, had been blown down...)

AS THE PREDICATID IN AN O-C CLAUSID:

We found [OBJECT: the tree | COMPLEMENT: {blown down by the wind}]. (We found the tree we sought-but found it blown down...)

AS THE PREDICATID IN AN OBJ. CLAUSID:

We heard [OBJECT: [the tree {blown down by the wind}]].

COMPARE THIS OBJ. CLAUSID FUNCTIONING AS THE SUBJECT IN AN O-C CLAUSID:

I consider [OBJECT: [Aunt Agnes dancing the twist at her age] | COMPLEMENT: a disgrace].

Robert L. Allen

CONCATENATIONS

Teachers College, Columbia University

SENTENCE:

But today Mrs. Fox wanted the policeman to make her husband stop having the grass cut while she was trying to sleep.

SENTENCE-UNIT:

today) Mrs. Fox wanted the policeman to make her husband stop having the grass cut while she was trying to sleep

TRUNK: [Mrs. Fox] wanted the policeman to make her husband stop having the grass cut while she was trying to sleep

PREDICATE: did {want the policeman to make her husband stop having the grass cut while she was trying to sleep}

PREDICATID: {want [the policeman to make her husband stop having the grass cut while she was trying to sleep]}

CLAUSID: [[the policeman] to make her husband stop having the grass cut while she was trying to sleep]

PREDICATID: {to make [her husband stop having the grass cut while she was trying to sleep]}

CLAUSID: [[her husband] stop having the grass cut while she was trying to sleep]

PREDICATID: {stop [having the grass cut while she was trying to sleep]}

PREDICATID: {having [the grass cut while she was trying to sleep]}

CLAUSID: [the grass cut (while she was trying to sleep]

TRUNK OF CLAUSID: [the grass] cut

(INCLUDED) CLAUSE: [while | she was trying to sleep]

SENTENCE-UNIT & TRUNK: [she] was trying to sleep

PREDICATE: was {trying to sleep}

PREDICATID: {trying [to sleep]}

PREDICATID: {to sleep}